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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/955,365	09/18/2001	Motohiro Tanno	3815/132	8340
29858	7590	07/25/2005	EXAMINER	
BROWN, RAYSMAN, MILLSTEIN, FELDER & STEINER LLP 900 THIRD AVENUE NEW YORK, NY 10022			MURPHY, RHONDA L	
			ART UNIT	PAPER NUMBER
			2667	

DATE MAILED: 07/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/955,365	Applicant(s) TANNO ET AL.	
	Examiner Rhonda Murphy	Art Unit 2667	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-56 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15-28 and 43-56 is/are allowed.
- 6) ☒ Claim(s) 1-3, 7, 8, 14, 29-31 and 42 is/are rejected.
- 7) ☒ Claim(s) 4-6, 9-13 and 32-41 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/09/04</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Objections

1. Claims 9, 10, 23, 24, 37, 38, 51 and 52 are objected to because of the following informalities:

The last line of claims 9, 23, 37 and 51 ends with an incomplete statement.

Regarding claims 10, 24, 38 and 52; "weighting value decreases increases" shall be reworded.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1 – 3, 7, 8 and 29 -31 are rejected under 35 U.S.C. 102(e) as being anticipated by Sarkar (US 6,363,060).

Regarding claims 1 and 29, Sarkar teaches a cell search method for a mobile station in a mobile communication system, the method being characterized by comprising steps of:

despreading a received signal with a spreading code common to all slots and detecting first slot boundaries on the basis of a first average correlation value calculated

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at intervals of first averaging time (Fig. 4; step 102-104; col. 7, lines 4-11; col. 8, lines 38-44).

despreading said received signal with different spreading codes for said respective slots on the basis of the detected first slot boundaries (col. 7, lines 12-27) and

detecting frame boundaries and a scramble code group on the basis of a second average correlation value (col. 8, lines 28-37);

descrambling a common pilot signal on the basis of said detected frame boundaries and scramble code group (col. 9, lines 5-8), and

detecting a scramble code on the basis of a third average correlation value (col. 8, lines 54-65);

detecting, concurrently with the step of detecting said frame boundaries and said scramble code group or the step of detecting said scramble code, second slot boundaries on the basis of a fourth average correlation value calculated through primary averaging executed at intervals of second averaging time (col. 13, lines 66-67; col. 14, lines 1-7);

determining whether or not the detected frame boundaries and scramble code are correct (col. 9, lines 54-56); and

repeating the process starting from the step of detecting said frame boundaries and said scramble code group on the basis of said detected second slot boundaries, if the incorrectness of said frame boundaries or said scramble code is determined (col. 9, lines 54-62).

Regarding claims 2 and 30, Sarkar teaches the second averaging time different from said first averaging time (col. 5, lines 52-54; col. 6, lines 1-4; longer PSC sample accumulation periods; SSC code word shorter accumulation period).

Regarding claims 3 and 31, Sarkar teaches the first averaging time longer than said second averaging time (col. 5, lines 52-54; col. 6, lines 1-4; longer PSC sample accumulation periods; SSC code word shorter accumulation period).

Regarding claim 7, Sarkar teaches secondary averaging as a process of carrying out averaging after weighting said first average correlation value and said already calculated fourth average correlation value (col. 9, lines 37-46, 64-67; col. 10, lines 1-4).

Regarding claim 8, Sarkar teaches weighting values that are adaptively different from each other. Examiner takes official notice that it is known in the art to have different weighting values, for the purpose applying various weights and adjusting the output.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 14 and 42 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sarkar (US 6,363,060).

Regarding claims 14 and 42, Sarkar teaches determining a state of the mobile station (col. 1, lines 46-52; the determination of mobile station states are well known in the art)

and repeating the steps of claim 1.

Sakar fails to explicitly disclose executing the repeating step, if it is determined that the mobile station is communicating at the step of determining the state.

However, since the mobile station is in communication with the base station and further repeatedly detects frame boundaries and scramble codes, it would have been obvious for the repetitive step of detecting frame boundaries and scramble codes to be executed while the mobile station is communicating, in order to provide signal synchronization.

Allowable Subject Matter

5. Claims 15 – 28 and 43 – 56 are allowed.

Regarding claims 15 and 43, prior art of record fails to disclose repeating the process starting from the step of detecting said frame boundaries and said scramble code group on the basis of said second slot boundaries detected during a present search, if the detected second slot boundaries are different from said second slot boundaries detected during a last cell search.

6. Claims 4 – 6, 9 – 13, 32 – 41 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

*Imaizumi et al. (US 6,678,313) discloses a correlation circuit for spread spectrum communication.

*Popovic' (US 6,567,482) discloses a method and apparatus for efficient synchronization in spread spectrum communications.

*Takahashi et al. (US 6,807,224) discloses a CDMA receiving apparatus and CDMA receiving method.

*Jamal et al. (US 5,930,366) discloses synchronization to a base station and code acquisition within a spread spectrum communication system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rhonda Murphy whose telephone number is (571) 272-3185. The examiner can normally be reached on Monday - Friday 8:00 - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (571) 272-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Rhonda Murphy
Examiner
Art Unit 2667

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CHI PHAM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2667 8/22/05